

FACSIMILE OF U.S. DEPARTMENT OF COMMERCE  
FORM PTO-1449 Patent and Trademark Office  
(REV. 6-89)



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ATTORNEY'S DOCKET NUMBER SERIAL NUMBER  
EMF-101 09/804,800

## APPLICANT

Markov, Marko et. al.

## FILING DATE

3/14/01

GROUP ART UNIT  
3736INFORMATION DISCLOSURE CITATION  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Cachia et al., <u>Structural Studies on Calmodulin and Tropomodulin C: Phenothiazine Peptide, and Protein Interactions with Calcium-Induced Helices, Calmodulin Antagonists and Cellular Physiology</u> , Acad. Press 1985
	Article	Wang et al., <u>Calmodulin and its Role in the Second-Messenger System</u> , Current Topics in Cellular Regulation, Volume 15, pp. 47-107, Academic Press 1979.
	Article	Klevit et al., <u>H-NMR Studies of Calmodulin-Peptide Interactions</u> , Calcium Binding Proteins, Academic Press 1987.
	Article	Asano et al., <u>Effects of Calmodulin Antagonists on Smooth Muscle Contraction and Myosin Phosphorylation</u> , Calmodulin Antagonists and Cellular Physiology, Academic Press 1985.
	Article	Kemnelly et al., <u>Activation of Rabbit Skeletal Muscle Myosin Light Chain Kinase by Calmodulin - A Mechanistic Overview</u> , Howard Hughes Medical Institute.
	Article	Kretsinger, R.H., <u>The Linker of Calmodulin - to Helix or Not to Helix</u> , pp. 363-376, Cell Calcium, Longman Group UK Ltd. 1992.
	Article	Trewhella, J., <u>The Solution Structures of Calmodulin and its Complexes with Synthetic Peptides Based on Target Enzyme Binding Domains</u> , Cell Calcium, pp. 377-390, Longman Group UK Ltd. 1992
	Article	Rasmussen et al., <u>Calmodulin, Cell Growth and Gene Expression</u> , TINS Vol. 12, No. 11, pp. 433-438, Elsevier Science Publishers Ltd UK 1989.
	Article	Means et al., <u>Calmodulin Regulation of Smooth-Muscle Myosin Light Chain Kinase</u> , Journal of Cardiovascular Pharmacology, Vol. 12, Suppl. 5, pp. S25-S29, Raven Press Ltd. 1988.
	Article	Sacks et al., <u>The Activity of Calmodulin is Altered by Phosphorylation: Modulation of Calmodulin Function by the Site of Phosphate Incorporation</u> , Biochemistry Journal 312, pp. 197-204, 1995.
	Article	Jarrett et al., <u>Alternate Binding of Actin and Calmodulin to Multiple Sites on Dystrophin</u> , The Journal of Biological Chemistry, Vol. 270, No. 10, pp. 5578-5586, March 1995.
	Article	Houdusse et al., <u>Target Sequence Recognition by the Calmodulin Superfamily</u> ..., Proceedings of National Academy of Science, Vol. 92, pp. 10644-10647, November 1995.
	Article	Anagli et al., <u>The Calmodulin-binding Domain of the Inducible (Macrophage) Nitric Oxide Synthase</u> , European Journal of Biochemistry, No. 233, pp. 701-708, August 1995.
	Article	Barnes et al., <u>PEST Sequences in Calmodulin-Binding Proteins</u> , Molecular and Cellular Biochemistry, Vol. 149/150, pp. 17-27, Kluwer Academic Publishers 1995.

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

FACSIMILE OF U.S. DEPARTMENT OF COMMERCE FORM PTO-1449 Patent and Trademark Office (REV. 6-89)		AT	ATTORNEY'S DOCKET NUMBER    SERIAL NUMBER EMF-101                        09/804,800
INFORMATION DISCLOSURE CITATION <i>(Use Several Sheets if Necessary)</i>		APPLICANT	Markov, Marko et. al.
		FILING DATE	GROUP ART UNIT 3/14/01                        3736

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**U. S. PATENT DOCUMENTS**

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**FOREIGN PATENT DOCUMENTS**

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						MAR 1 2002		

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	Article	Tashima et al., <u>Overexpression of Ca<sup>2+</sup> / Calmodulin-Dependent Protein Kinase II Inhibits Neurite Outgrowth of PC12 Cells</u> , Journal of Neurochemistry Vol. 66, No. 1, pp. 57-64, 1996.
	Article	Blackman et al., <u>The Influence of Temperature During Electric- and Magnetic-Field-Induced Alteration of Calcium-Ion Release From In Vitro Brain Tissue</u> , Bioelectromagnetics 12, pp. 173-182, Wiley-Liss 1991.
	Article	Liburdy, R. P., <u>Calcium Signaling in Lymphocytes and ELF Fields</u> , FEBS Letters, Vol. 301:1, pp. 53-59, Federation of European Biochemical Societies, Elsevier Science Publishers, April 1992.
	Article	Adelstein et al., <u>Purification and Characterization of Smooth Muscle Myosin Light Chain Kinase</u> , The Journal of Biological Chemistry Vol. 256 No.14, pp. 7501-7509, 1981.
	Article	Walsh et al., <u>Smooth Muscle Myosin Light Chain Kinase</u> , Methods in Enzymology, Vol. 99, pp. 279-289, Academic Press, 1983.
	Article	Gilbert et al., <u>Depolarization Decreases the [Ca<sup>2+</sup>]; Sensitivity of Myosin Light-Chain Kinase in Arterial Smooth Muscle: Comparison of aequorin and fura 2 [Ca<sup>2+</sup>]; estimates</u> , The FASEB Journal, Vol. 5, pp. 2593-2599, August 1991
	Article	Kemp et al., <u>Spatial Requirements for Location of Basic Residues in Peptide Substrates for Smooth Muscle Myosin Light Chain Kinase</u> , The Journal of Biological Chemistry, Vol. 260 No. 6, pp. 3355-3359, The American Society of Biological Chemists, Inc., March 1985.
	Article	Kemnelly et al., <u>Rabbit Skeletal Muscle Myosin Light Chain Kinase</u> , The Journal of Biological Chemistry, Vol. 262:23, pp. 11958-11963, September 1987, The American Society of Biological Chemists, Inc.
	Article	Trybus, K.M., <u>Role of Myosin Light Chains</u> , Journal of Muscle Research and Cell Motility 15, pp. 587-594, Chapman & Hall, 1994.
	Article	Stepkowski, D., <u>The Role of the Skeletal Muscle Myosin Light Chains N-terminal Fragments</u> , FEBS Letters 374, pp. 6-11, Federation of European Biochemical Societies 1995.
	Article	Hartshorne, D., <u>Calmodulin: An Introduction to Biochemical Aspects</u> , Calmodulin Antagonists and Cellular Physiology, pp. 3-12, Academic Press, 1985.
	Article	Sisken, B.F., <u>The Role of Calcium Ions in Electrically-Stimulated Neurite Formation In Vitro</u> , pp. 417-430.
	Article	Cox et al., <u>Cation Binding to Calmodulin and Relation to Function</u> , Calcium and Calcium Binding Proteins, pp. 141-162, Springer-Verlag Berlin Heidelberg 1988.

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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**O P E S C**  
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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	Article	Carafoli et al., <u>The Calcium Pump of the Plasma Membrane: Recent Studies on the Purified Enzyme and on its Proteolytic Fragments...</u> , Calcium Binding Proteins on Health and Disease, pp. 78-91, Academic Press 1987.
	Article	Yamaguchi, M., <u>A Novel Ca<sup>2+</sup>-binding Protein Regucalcin and Calcium Inhibition: Regulatory Role in Liver Cell Function</u> , Calcium Inhibition, pp. 19-41, Japan Sci., Soc. Press 1992.
	Article	Kimura et al., <u>Inhibitory and Excitatory Role of Ca<sup>2+</sup> at Neuromuscular Synapse: The Discovery, Properties, and Role of nACh-RAMIC</u> , Calcium Inhibition, pp. 43-67, Japan Sci. Soc. Press 1992/
	Article	Weinstein et al., <u>Molecular Biophysics of Specificity and Function in Enzymes, Receptors and Calcium Binding Proteins</u> , Theoretical Biochemistry & Molecular Biophysics, pp. 275-289, Adenine Press 1990.
	Article	Hiraoki et al., <u>Structure and Function of Calcium-Binding Proteins</u> , Journal of Cardiovascular Pharmacology, Vol. 10 (Suppl.1), pp. S14-S31, Raven Press, 1987.
	Article	Adelstein et al., <u>Myosin Structure and Function</u> , Biochemistry of Smooth Muscle Contraction, pp. 3-19, Academic Press 1996.
	Article	Trybus, K. M., <u>Myosin Regulation and Assembly</u> , Biochemistry of Smooth Muscle Contraction, pp. 37-46, Academic Press 1996.
	Article	Barany et al., <u>Myosin Light Chains</u> , Biochemistry of Smooth Muscle Contraction, pp. 21-35, Academic Press 1996.
	Article	Bruckner-Lea et al., <u>Calcium Binding to Metallochromic Dyes and Calmodulin in the Presence of Combined AC-DC Magnetic Fields</u> , Bioelectromagnetics 13, pp. 147-162, Wiley-Liss 1992.
	Article	Mani et al., <u>Calcium Binding Proteins</u> , Biochemistry of Smooth Muscle Contraction, pp. 105-116, Academic Press 1996.
	Article	Stull et al., <u>Myosin Light Chain Kinase</u> , Biochemistry of Smooth Muscle Contraction, pp. 119-130, Academic Press 1996.
	Article	Blackman et al., <u>Effects of ELF Fields on Calcium-Ion Efflux from Brain Tissue in Vitro</u> <sup>12</sup> , Radiation Research Vol. 92, pp. 510-520, 1982.
EXAMINER		DATE CONSIDERED

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Louboutin et al., <u>Comparison of Contractile Properties Between Developing and Regenerating Soleus Muscle: Influence of External Calcium Concentration</u> ....., Muscle & Nerve, pp. 1292-1299, Nov. 1995.
	Article	Bainave et al., <u>Intracellular Calcium and Force in Single Mouse Muscle Fibres Following Repeated Contractions with Stretch</u> , Journal of Physiology 488.1, pp. 25-36, 1995.
	Article	Conley et al., <u>From Muscle Properties to Human Performance, Using Magnetic Resonance</u> , The Journal of Gerontology Series A, Vol. 50A, pp. 35-40, 1995.
	Article	Barclay et al., <u>Fatigue and Heat Production in Repeated Contractions of Mouse Skeletal Muscle</u> , Journal of Physiology 488.3, pp. 741-752, 1995.
	Article	Haghghi et al., <u>Origin of Muscle Action Potentials Evoked by Transcranial Magnetic Stimulation in Cats</u> , Neurological Research, Vol. 17, pp. 469-473, December 1995.
	Article	Uchida, M.K., <u>Ca Reversal and Ca Relaxation—Ca Inhibition of Ca-independent Contraction of Smooth Muscle</u> , Calcium Inhibition, pp. 167-200, Japan Sci. Soc. Press 1992.
	Article	dos Remedios et al., <u>Actin and the Actomyosin Interface: A Review</u> , Biochimica et Biophysica Acta 1228, pp. 99-124, Elsevier Science 1995.
	Article	Ridgway et al., <u>Determination of Resting Free Calcium in Barnacle Muscle Using Modified Aequorins, Buffered Calcium Injections</u> ...., Journal of Muscle Research and Cell Motility 16, pp. 499-507, 1995.
	Article	Sparrow et al., <u>Calmodulin is Essential for Smooth Muscle Contraction</u> , FEBS Letters Vol. 125 No.2, March 1981.
	Article	Hashitani et al., <u>Electrical and Mechanical Responses Produced by Nerve Stimulation in Detrusor Smooth Muscle of the Guinea-pig</u> , European Journal of Pharmacology 284, pp. 177-183, Elsevier Science 1995.
	Article	Oda et al., <u>Effects of Actin and Calcium ion on Chymotryptic Digestion of Skeletal Myosin and Their Implications to the Function of Light Chains</u> , Biochemistry Vol. 19 No. 24, pp. 5614-5618, 1980.
	Article	Barany et al., <u>Myosin Light Chain Phosphorylation during Contraction of Chicken Fast and Slow Skeletal Muscles</u> , Archives of Biochemistry and Biophysics, Vol. 223, No. 2, pp. 692-703, September 1983.
	Article	Maciver, S. K., <u>Myosin II Function in Non-Muscle Cells</u> , BioEssays Vol. 18 No. 3, pp. 179-182, ICSU Press 1996.
	Article	Davis et al., <u>Indirect Coupling of Phosphate Release to de novo Tension Generation During Muscle Contraction</u> , Proceeding of National Academy of Science Vol. 92, pp. 10482-10486, November 1995.
	Article	Nordin et al., <u>Effect of Noxious Stimulation on Sympathetic Vasoconstrictor Outflow to Human Muscles</u> , Journal of Physiology 489.3 pp. 885-894, 1995.

EXAMINER	DATE CONSIDERED
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**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Butler et al., <u>Intracellular Calcium, Myosin Light Chain Phosphorylation, and Contractile Force in Experimental Cerebral Vasospasm</u> , Neurosurgery Vol. 38, No. 4, April 1996.
	Article	Puchala et al., <u>Oxygen Effect in the Radiolysis of Proteins</u> , International Journal of Peptide & Protein Research 46, pp. 326-332, 1995.
	Article	Kriketos et al., <u>Relationships Between Muscle Membrane Lipids, Fiber Type, and Enzyme Activities in Sedentary and Exercised Rats</u> , American Journal of Physiology 269:38, pp. R1154-R1162, 1995.
	Article	Crowley et al., <u>Multiple Growth Factors are Released from Mechanically Injured Vascular Smooth Muscle Cells</u> , American Journal of Physiology 269, pp. H1641-H1647, 1995.
	Article	Harris et al., <u>Thiophosphorylation Independently Activates Each Head of Smooth Muscle Myosin In Vitro</u> , American Journal of Physiology 269, pp. C1160-C1166, American Physiological Society 1995.
	Article	Xiong et al., <u>Ca<sup>2+</sup> Currents in Human Colonic Smooth Muscle Cells</u> , American Journal of Physiology 269, pp. G-378-G385, American Physiological Society 1995.
	Article	Bitar et al., <u>Modulation of Smooth Muscle Contraction by Sphingosylphosphorylcholine</u> , American Journal of Physiology 269, pp. G370-G377, American Physiological Society 1995.
	Article	Lheureux et al., <u>Comparative Studies of the Monomeric and Filamentous Actin-Myosin Head Complexes</u> , Biochemistry, Vol. 34, No. 36, pp. 11435-11444, American Chemical Society 1995.
	Article	Lheureux et al., <u>Functional Significance of the Binding of One Myosin Head to Two Actin Monomers</u> , Biochemistry, Vol. 34, No. 36, pp. 11445-11452, American Chemical Society 1995.
	Article	Shashkin et al., <u>Effects of CGS 9343B (a Putative Calmodulin Antagonist) on Isolated Skeletal Muscle</u> , Journal of Biological Chemistry, Vol. 270, No. 43, pp. 25613-25618, 1995.
	Article	Huxley et al., <u>Proposed Mechanism of Force Generation in Striated Muscle</u> , Nature, Vol. 233, pp. 533-538, October 22, 1971.
	Article	Kemp et al., <u>The Calmodulin Binding Domain of Chicken Smooth Muscle Myosin Light Chain Kinase Contains a Pseudosubstrate Sequence</u> , The Journal of Biological Chemistry, Vol. 262, No. 6, pp. 2542-2548, February 1987.
	Article	Szabényi et al., <u>Some Thoughts Regarding EF-Hands and the Structure of Calbindin, Calcium-Binding Proteins in Health and Disease</u> , pp. 323-332, Academic Press 1987.
	Article	Bowman et al., <u>Pre-Steady-State Kinetics of the Activation of Rabbit Skeletal Muscle Myosin Light Chain Kinase by Ca<sup>2+</sup>/Calmodulin</u> , Journal of Biological Chemistry Vol. 267, No. 8, pp. 5346-5354, Mar. 1992.
EXAMINER		DATE CONSIDERED ROBYN 2002

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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						YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Perezhin et al., <u>Different Mechanisms for Ca<sup>2+</sup> Dissociation from Complexes of Calmodulin with Nitric Oxide Synthase or Myosin Light Chain Kinase</u> , The Journal of Biological Chemistry, Vol. 271:1, pp. 62-67, The American Society for Biochemistry and Molecular Biology, Inc., January 1996.
	Article	Tokumitsu et al., <u>Requirements for Calcium and Calmodulin in the Calmodulin Kinase Activation Cascade</u> , The Journal of Biological Chemistry Vol. 271 No.10, pp. 5617-5622, The American Society for Biochemistry and Molecular Biology, Inc., March 1996.
	Article	Hama et al., <u>Calcium/Calmodulin-dependent Protein Kinase II Downregulates Both Calcineurin and Protein Kinase C-mediated Pathways</u> ..., Journal of Experimental Medicine Volume 181, pp. 1217-1222, March 1995.
	Article	Molloy et al., <u>Movement and Force Produced by a Single Myosin Head</u> , Nature, Vol. 378, pp. 209-211, November 1995.
	Article	Babu et al., <u>Crystal Structure of Calmodulin</u> , Calcium-Binding Proteins in Health and Disease, pp. 305-311, Academic Press 1987.
	Article	Adelstein et al., <u>Regulation of Myosin Light Chain Kinase by Reversible Phosphorylation and Calcium-Calmodulin</u> , Annals New York Academy of Sciences, pp. 142-149, 1980.
	Article	Sellers et al., <u>Effect of Multiple Phosphorylations on Movement of Smooth Muscle and Cytoplasmic Myosin</u> , Calcium Protein Signaling, pp. 299-304, Plenum Press 1988.
	Article	Kennedy et al., <u>Calcium/Calmodulin-Dependent Protein Kinases</u> , Calcium and Cell Function, Vol. VII, pp. 61-107, Academic Press, 1987.
	Article	Cohen et al., <u>Calcium Control of Muscle Phosphorylase Kinase Through the Combined Action of Calmodulin and Troponin</u> , Annals New York Academy of Sciences, pp. 151-161, 1980.
	Article	Melikyan et al., <u>GPI-anchored Influenza Hemagglutinin Induces Hemifusion to Both Red Blood Cell and Planar Bilayer Membranes</u> , Life Sciences 1200, Issue 47, November 1995.
	Article	Hofmann, F., <u>Calcium-Dependent Protein Kinases and Calmodulin Antagonists</u> , Calmodulin Antagonists and Cellular Physiology, pp. 287-298, Academic Press 1985.
	Article	Niki et al., <u>Presence and Possible Involvement of Ca/CaModulin-Dependent Protein Kinases in Insulin Release from the Rat Pancreatic <math>\beta</math> Cell</u> , Biochemical and Biophysical Research Communications, Vol. 191, No. 1, pp. 255-261, February 1993.

EXAMINER

DATE CONSIDERED

RECEIVED  
MAR 1 2002  
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<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
	Article	Kelly et al., <u>Regulation of Ca<sup>2+</sup>/Calmodulin-Dependent Protein Kinase II by Autophosphorylation /Dephosphorylation</u> , Calcium-Binding Proteins, pp. 180-184, Academic Press 1987.					
	Article	Blumenthal et al., <u>Activation of Skeletal Muscle Myosin Light Chain Kinase by Calcium(2+)</u> and <u>Calmodulin</u> , Biochemistry, Vol. 19, pp. 5608-5614, 1980.					
	Article	Williams, R.J.P., <u>Calcium and Calmodulin</u> , Cell Calcium, Vol. 13, pp. 355-362, Longman Group 1992.					
	Article	Liu et al., <u>Calcium-Calmodulin Modulation of the Olfactory Cyclic Nucleotide-Gated Cation Channel</u> , Science, Vol. 266, pp. 1348-1354, November 1994.					
	Article	Hatakeyama et al., <u>Vascular Aldosterone Biosynthesis and a Link to Angiotensin II-induced Hypertrophy of Vascular Smooth Muscle Cells</u> , Journal Club, pp. 582-585.					
	Article	de Lenerolle, P., <u>Regulation of Embryonic Smooth Muscle Myosin by Myosin Light Chain Kinase and by Protein Kinase C</u> , Calcium Protein Signaling, pp. 305-314, Plenum Press 1988.					
	Article	Pearson et al., <u>Myosin Light Chain Kinase Binding to Plastic</u> , FEBS Letters Vol. 145, No. 2, pp. 327-331, Federation of European Biochemical Societies, August 1982.					
	Article	Dabrowska et al., <u>Modulator Protein as a Component of the Myosin Light Chain Kinase from Chicken Gizzard</u> , Biochemistry, pp. 253-258, American Chemical Society 1978.					
	Article	Kennelly et al., <u>Organization of Myosin Light Chain Kinase from Rabbit Skeletal Muscle</u> , pp. 494-504.					
	Article	Ikura et al., <u>Isotope-Filtered 2D NMR of a Protein-Peptide Complex: Study of a Skeletal Muscle Myosin Light Chain Kinase Fragment Bound to Calmodulin</u> , Journal of the American Chemical Society, Vol. 114, No. 7, pp. 2433-2440, 1992.					
	Article	Greco, Jr. et al., <u>New Experimental Technique for Detecting the Effect of Low-Frequency Electric Fields on Enzyme Structure</u> , Bioelectromagnetics 11, pp. 57-70, Wiley-Liss 1990.					
	Article	Kolodney et al., <u>Contraction Due to Microtubule Disruption is Associated with Increased Phosphorylation of Myosin Regulatory Light Chain</u> , Proceedings of the National Academy of Science USA, Vol. 92, pp. 10252-10256, October 1995.					
EXAMINER		DATE CONSIDERED					
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### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Tokimasa, T., <u>Effects of Myosin Light Chain Kinase Inhibitors on Delayed Rectifier Potassium Current in Bullfrog Sympathetic Neurons</u> , Neuroscience Letters 197, pp. 75-77, Elsevier Science Ireland 1995.
	Article	Dabrowska et al., <u>A Ca<sup>2+</sup>- and Modulator-Dependent Myosin Light Chain Kinase from Non-Muscle Cells</u> , Biochemical and Biophysical Research Communications, Vol. 85, No. 4, pp. 1352-1359, December 1978.
	Article	Dabrowska et al., <u>Composition of the Myosin Light Chain Kinase from Chicken Gizzard</u> , Biochemical And Biophysical Research Communications, Vol. 78, No. 4, pp. 1263-1272, 1977.
	Article	Kerrick, W.G.L., <u>Myosin Light Chain Kinase in Skinned Fibers</u> , Calcium and Cell Function, Vol. II, pp. 279-295, Academic Press 1982.
	Article	Kemp et al., <u>Spatial Requirements for Location of Basic Residues in Peptide Substrates for Smooth Muscle Myosin Light Chain Kinase</u> , Journal of Biological Chemistry, Vol. 260, No. 6, pp. 3355-3359, Mar. 1985.
	Article	Ashizawa et al., <u>Dephosphorylation of a 30-KDa Protein of Fowl Spermatozoa</u> ...., Biochemical and Biophysical Research Communications, Vol. 215, No. 2, October 1995.
	Article	Potier et al., <u>The Human Myosin Light Chain Kinase (MLCK) from Hippocampus: Cloning, Sequencing, Expression, and Localization to 3qcen-q21</u> , Genomics 29, pp. 562-570, Academic Press 1995.
	Article	Fukunaga et al., <u>Increased Phosphorylation of Ca<sup>2+</sup>/Calmodulin-dependent Protein Kinase II and Its Endogenous Substrates in the Induction of Long Term Potentiation</u> , Journal of Biological Chemistry, Vol. 270, No. 11, pp. 6119-6124, March 1995.
	Article	Ogawara et al., <u>Differential Targeting of Protein Kinase C and CaM Kinase II Signaling to Vimentin</u> , Journal of Cell Biology, Vol. 131, No. 4, pp. 1055-1066, Rockefeller University Press 1995.
	Article	Barden et al., <u>Structure of the Pseudosubstrate Recognition Site of Chicken Smooth Muscle Myosin Light Chain Kinase</u> , Biochimica et Biophysica Acta 1292, pp. 106-112, Elsevier Science B.V. 1996.
	Article	Verkhovsky et al., <u>Myosin II Filament Assemblies in the Active Lamella of Fibroblasts: Their Morphogenesis</u> ...., Journal of Cell Biology, Vol. 131, No. 4, pp. 898-1002, Rockefeller Univ. Press 1995.
	Article	Ho et al., <u>Both the Amino and Carboxyl Termini of Dictyostelium Myosin Essential Light Chain are Required for Binding to Myosin Heavy Chain</u> , Journal of Biological Chemistry, Vol. 270, No. 16, pp. 27977-27981, Nov. 1995.
	Article	Adelstein et al., <u>Regulation and Kinetics of the Actin-Myosin-ATP Interaction</u> <sup>12</sup> , Ann. Rev. Biochem, Vol. 49, pp. 921-955, 1980.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Blackman et al., Effects of ELF (1-120 Hz) and Modulated (50 Hz) RF Fields on the Efflux of Calcium Ions From Brain Tissue In Vitro, Bioelectromagnetics 6, pp. 1-11, Alan R. Liss, Inc. 1985.
	Article	Blackman et al., A Role for the Magnetic Field in the Radiation-Induced Efflux of Calcium Ions from Brain Tissue In Vitro, Bioelectromagnetics 6, pp. 327-337, Alan R. Liss, Inc. 1985
	Article	Dutta et al., Radiofrequency Radiation-Induced Calcium Ion Efflux Enhancement from Human and Other Neuroblastoma Cells in Culture, Bioelectromagnetics 10, pp. 197-202, Alan R. Liss, Inc. 1989.
	Article	Yost et al., Time-Varying and Static Magnetic Fields Act in Combination to Alter Calcium Signal Transduction in the Lymphocyte, FEBS Letters, Vol. 296, No. 2, pp. 117-122, Federation of European Biochemical Societies, January 1992.
	Article	Dutta et al., Microwave Radiation-Induced Calcium Ion Efflux From Human Neuroblastoma Cells in Culture, Bioelectromagnetics 5, pp. 71-78, Alan R. Liss, Inc. 1984.
	Article	Hahn et al., Patterns of Elevated Free Calcium and Calmodulin Activation in Living Cells, Nature, Vol. 359, pp. 736-738, October 1992.
	Article	Forsen et al., Structure-Function Relations in EF-Hand Ca <sup>2+</sup> -Binding Proteins: Genetic Engineering and Biophysical Studies of Bovine Intestinal Calcium Protein, Calcium-Binding Proteins, Acad. Press 1987.
	Article	Blackman et al., The Influence of Temperature During Electric- and Magnetic-Field-Induced Alteration of Calcium-Ion Release From In Vitro Brain Tissue, Bioelectromagnetics 12, pp. 173-182, Wiley-Liss 1991.
	Article	Ogawa, Y., Cooperativity in Calcium Binding and Calcium Dependent Reactions, Calcium Protein Signaling, pp. 205-214, Plenum Press 1988.
	Article	Yagi et al., Interaction Between Calmodulin and Target Proteins, pp. 147-154
	Article	Klee et al., Calmodulin, Ann. Rev. Biochem., Vol. 49, pp. 489-515, 1980.
	Article	Vogel et al., Protein Engineering and NMR Studies of Calmodulin, Molecular and Cellular Biochemistry 149/150, pp. 3-15, Kluwer Academic Publishers 1995.
	Article	Taketa et al., High Molecular Weight Calmodulin-binding Protein is Phosphorylated by Calmodulin-dependent Protein Kinase VI from Bovine Cardiac Muscle, Molecular and Cellular Biochemistry 149/150, pp. 29-34, Kluwer Academic Publishers 1995.

EXAMINER

DATE CONSIDERED

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### U.S. PATENT DOCUMENTS

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### FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Article	Cheung, W.Y., <u>Calmodulin Plays a Pivotal Role in Cellular Regulation</u> , Science, Vol. 207 No.4, January 1980.
	Article	Cox, J.A., <u>Interactive Properties of Calmodulin</u> , Biochemical Journal, Vol. 249, pp. 621-629, 1988.
	Article	Braun et al., <u>A Non-selective Cation Current Activated via the Multifunctional Ca<sup>2+</sup> - Calmodulin-dependent Protein Kinase in Human Epithelial Cells</u> , Journal of Physiology 488.1, pp. 37-55, 1995.
	Article	Forsen et al., <u>Biophysical Studies of Calmodulin</u> , Calcium and Cell Function, Vol. VI, pp. 113-157, Academic Press 1986.
	Article	Blumenthal et al., <u>Preparation and Properties of the Calmodulin-Binding Domain of Skeletal Muscle Myosin Light Chain Kinase</u> , Methods in Enzymology, Vol. 139, pp. 115-126, Academic Press 1987.
	Article	Babu et al., <u>Structure of Calmodulin Refined at 2.2 Å Resolution</u> , Journal of Molecular Biology, Vol. 204, pp. 191-204, 1988.
	Article	Hidaka, H., <u>Biopharmacological Assessment of Calmodulin Function: Utility of Calmodulin Antagonist Naphthalenesulfonamide</u> , Proc. West. Pharmacol. Soc. 24, pp. 203-208, 1981.
	Article	Hidaka et al., <u>Activity-Structure Relationship of Calmodulin Antagonists</u> , Molecular Pharmacology, Vol. 20, pp. 571-578, The American Society for Pharmacology 1981.
	Article	Klevit et al., <u>Interaction of Calmodulin and a Calmodulin-Binding Peptide from Myosin Light Chain Kinase: Major Spectral Changes in Both Occur as the Result of Complex Formation</u> , Calmodulin-Peptide Interactions, Vol. 24, No. 27, pp. 8152-8157, American Chemical Society 1985.
	Article	Heidom et al., <u>Calmodulin-Binding Domain of Myosin Light Chain Kinase</u> , American Chemical Society, 1989
	Article	Naim et al., <u>Calmodulin and Myosin Light-Chain Kinase of Rabbit Fast Skeletal Muscle</u> , Biochemical Journal, Vol. 179, pp. 89-97, 1979.
	Article	Lukas et al., <u>An Interdisciplinary Approach to the Molecular Mechanisms of Calmodulin Action: Comparative Biochemistry, Site-Specific Mutagenesis, and Protein Engineering</u> , Calcium Binding Proteins, pp. 533-543, Academic Press 1987.
	Article	Kretsinger et al., <u>Crystal Structure of Calmodulin</u> , Journal of Inorganic Biochemistry 28, pp. 289-302, Elsevier Science Publishing, New York 1986.
EXAMINER		DATE CONSIDERED

**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Article	Kidaka et al., <u>Biopharmacological Assessment of Calmodulin Function: Utility of Calmodulin Antagonists</u> , Calmodulin & Intracellular Ca++ Receptors, pp. 19-33, Plenum Publishing Corp. 1982.
Article	Suematsu et al., <u>Actions of Calmodulin and Cyclic Nucleotides in Vascular Smooth Muscles: Assessments from Drug Actions</u> , Calmodulin Antagonists and Cellular Physiology, pp. 301-320, Academic Press 1985.
Article	Ikura et al., <u>Solution Structure of Calmodulin and its Complex with a Myosin Light Chain Kinase Fragment</u> , Cell Calcium Vol. 13, pp. 391-400, Longman Group UK Ltd 1992.
Article	Hartshorne, D.J., <u>Calmodulin: An Introduction to Biochemical Aspects</u> , Calmodulin Antagonists and Cellular Physiology, pp. 3-11, Academic Press 1985.
Article	Demaille, J.G., <u>Calmodulin and Calcium-Binding Proteins: Evolutionary Diversification of Structure and Function</u> , Calcium and Cell Function, Vol. II, pp. 111-143, Academic Press 1982.
Article	Yazawa et al., <u>Regulatory and Target-Binding Domains of Calmodulin</u> , Calcium Binding Proteins, pp. 446-448, Academic Press 1987.
Article	Kuhn et al., <u>Stimulation of Synthesis of Neurotransmitters by Calmodulin-Dependent Phosphorylation</u> , Calcium and Cell Function, Vol. III, pp. 311-323, Academic Press, 1982.
Article	Arber, S.L., <u>Microwave Enhancement of Membrane Conductance: Calmodulin Hypothesis</u> , Physiological Chemistry and Physics and Medical N M R, Vol. 17, pp. 227-233, 1985.
Article	Ikura et al., <u>Solution Structure of a Calmodulin-Target Peptide Complex by Multidimensional NMR</u> , Science, Vol. 256, pp. 632-638, May 1992.
Article	Maune et al., <u>Ca<sup>2+</sup> Binding and Conformational Change in Two Series of Point Mutations to the Individual Ca<sup>2+</sup>-binding Sites of Calmodulin</u> , Journal of Biological Chemistry 267.8, pp. 5286-5295, March 1992.
Article	Hidaka et al., <u>Molecular Pharmacology of Calmodulin Pathways in the Cell Functions</u> , Cell Calcium, Vol. 13, pp. 465-472, Longman Group UK Ltd. 1992.
Article	Sharma, R.K., <u>Signal Transduction: Regulation of cAMP Concentration in Cardiac Muscle by Calmodulin-dependent Cyclic Nucleotide Phosphodiesterase</u> , Molecular and Cellular Biochemistry 149/150, pp. 241-247, Kluwer Academic Publishers 1995.
Article	Martin et al., <u>Spectroscopic Characterization of a High-Affinity Calmodulin - Target Peptide Hybrid Molecule</u> , Biochemistry 35, pp. 3508-3517, American Chemical Society 1996.
Article	Latigge et al., <u>Analysis of the Ion Binding Sites of Calmodulin by Electrospray Ionization/Mass Spectrometry</u> , Biochemistry 34, pp. 13825-13832, American Chemical Society 1995.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

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